METHOD AND APPARATUS FOR CONTROLLING MINIMUM BRIGHTNESS OF A FLUORESCENT LAMP

Abstract of the Disclosure

An efficient power conversion circuit for driving a fluorescent lamp uses a minimum pulse generator circuit to control the minimum on-time of a time modulated signal to increase the dimming range of the fluorescent lamp operating over a wide range of temperature and supply voltage. A minimum number of lamp current cycles with respective amplitudes above a preset threshold is typically required to avoid flickering or shimmering during minimum brightness. The minimum pulse generator circuit counts the lamp current cycles and adjusts the on-time accordingly to guarantee the minimum number of cycles with respective amplitudes above a preset threshold under all operating conditions.

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